

WHAT IS CLAIMED IS:

1. A semiconductor device, comprising:

a wiring board;

5 a semiconductor chip provided on said wiring board and having a pad electrically connected to a wiring on said wiring board; and a second semiconductor chip provided on said wiring board at a position facing a side of said semiconductor chip, having passive elements integrated therein, and having pads for external 10 connection to which both ends of the passive elements are connected respectively and at least one of which is electrically connected to the wiring on said wiring board electrically connected to the pad of said semiconductor chip.

2. A semiconductor device as set forth in claim 1, wherein

15 the passive elements integrated in said second semiconductor chip are elements of one kind, or two kinds or more selected from a group of a capacitor, a resistor, and an inductor.

3. A semiconductor device as set forth in claim 1, wherein 20 said semiconductor chip is flipchip-connected to said wiring board so as to electrically connect the pad to the wiring on said wiring board.

4. A semiconductor device as set forth in claim 1, wherein 25 said semiconductor chip has bonding wire connection to the wiring of said wiring board so as to electrically connect the pad to the wiring on said wiring board.

5. A semiconductor device as set forth in claim 1, wherein said second semiconductor chip is flipchip-connected to said wiring board so as to electrically connect the pads for external connection

to the wiring on said wiring board.

6. A semiconductor device as set forth in claim 1, wherein
said second semiconductor chip has bonding wire connection to the
wiring of said wiring board so as to electrically connect the pads
5 for external connection to the wiring on said wiring board.

7. A semiconductor device as set forth in claim 1, wherein
said semiconductor chip and said second semiconductor chip are both
60 μ m or less in thickness.

8. A semiconductor device as set forth in claim 5, wherein
10 said second semiconductor chip has, besides the pads for external
connection used for the flipchip connection to said wiring board,
a pad for external connection not contributing to the flipchip
connection to said wiring board.

9. A semiconductor device, comprising:

15 a plurality of semiconductor device portion units arranged
in a lamination direction and each including: a wiring board; a
semiconductor chip provided on said wiring board and having a pad
electrically connected to a wiring on said wiring board; and a second
semiconductor chip provided on said wiring board at a position facing
20 a side of said semiconductor chip, having passive elements
integrated therein, and having pads for external connection to which
both ends of the passive elements are connected respectively and
at least one of which is electrically connected to the wiring on
said wiring board electrically connected to the pad of said
25 semiconductor chip; and

a vertical wiring portion passing through said wiring boards
of said plural semiconductor device portion units and electrically
connecting said wiring boards to one another.

10. A semiconductor device as set forth in claim 9, wherein
the passive elements integrated in said second semiconductor chips
of the respective plural semiconductor device portion units are
elements of one kind, or two kinds or more selected from a group
5 of a capacitor, a resistor, and an inductor.

11. A semiconductor package member, comprising:
a wiring board on which a semiconductor chip is mountable;
and

an auxiliary semiconductor chip provided on said wiring board
10 at a position facing a side of said semiconductor chip to be mounted,
having passive elements integrated therein, and having pads for
external connection to which both ends of the passive elements are
connected respectively and at least one of which is electrically
connected to a wiring on said wiring board.

15 12. A semiconductor package member as set forth in claim
11, wherein the passive elements integrated in said auxiliary
semiconductor chips are elements of one kind, or two kinds or more
selected from a group of a capacitor, a resistor, and an inductor.

13. A semiconductor device manufacturing method,
20 comprising:
mounting on a wiring board a semiconductor chip having a pad
so as to electrically connect the pad and a wiring on the wiring
board; and

mounting a second semiconductor chip having passive elements
25 integrated therein and having pads for external connection to which
both ends of the passive elements are connected respectively, on
the wiring board at a position facing a side of the semiconductor
chip so as to electrically connect at least one of the pads for

external connection to the wiring on the wiring board electrically connected to the pad of the semiconductor chip.